

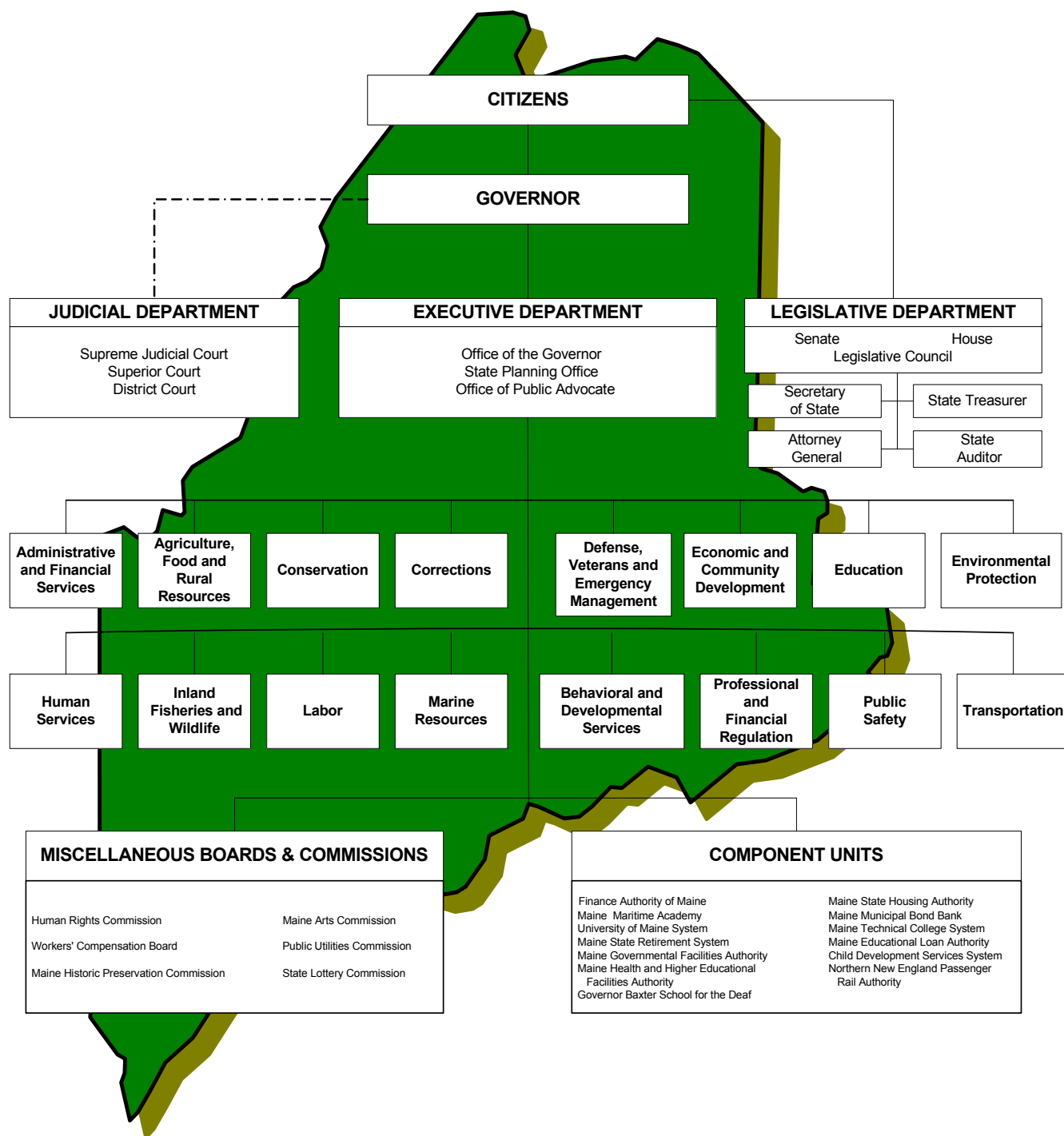
SECTION 4 – MITIGATION STRATEGY

According to § 201.4(c)(3) the State of Maine Hazard Mitigation Plan includes a mitigation strategy that provides the State of Maine with a blueprint for reducing the losses identified in the risk assessment. The strategy includes goals and objectives that are based on the risk assessment and are consistent with goals from other state and local plans and policies. These goals and objectives will guide the State's strategies and selection of activities to achieve the desired, long-term hazard protection. The State has also assessed its own as well as its local jurisdictions' capabilities to staff programs or projects and fund measures to achieve the goals of the plan. The State has identified funding from federal, local, and private sources to complement its own resources.

This section includes the following five subsections as follows:

- State Capability Assessment
- Local Capability Assessment
- Funding Sources
- Hazard Mitigation Goals
- Mitigation Measures

ORGANIZATION CHART OF MAINE STATE GOVERNMENT AS OF JUNE 30, 2003



This chart illustrates the organizational format of the State of Maine government. It is provided to give the reader a broad concept of the various departments and their reporting structures.

STATE CAPABILITY ASSESSMENT

Requirement §201.4(c)(3)(ii)	<i>[The State mitigation strategy shall include a] discussion of the State's pre- and post-disaster hazard management policies, programs, and capabilities to mitigate the hazards in the area, including: an evaluation of State laws, regulations, policies and programs related to hazard mitigation as well as development in hazard-prone areas; and a discussion of State funding capabilities for hazard mitigation projects.</i>
----------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Because a state capability assessment of its statutes, regulations, policies and programs related to hazard mitigation had not been accomplished in detail before, this is a first attempt to collect and review these various forms of guidance and directives. The table which follows will describe in summary the current capabilities by Hazard category and whether these programs are pre-disaster or post-disaster mitigation activities.

State Mitigation Capabilities by Hazard Matrix

HAZARD	TYPICAL DAMAGES or LOSSES	AGENCY TASKED	PROGRAMS	PRE- OR POST-DISASTER
Flooding	All Structures	Floodplain Management Office	Maine Floodplain Management Program	Pre-disaster
Flooding	Local Roads State Roads	Dept of Transportation	Maine Local Roads Center Capitol Improvement Projects	Pre-disaster Pre-disaster
Flooding	New Public Property	Office of Community Development	Economic Development Infrastructure Grants Public Facilities Grant Program	Pre-disaster
Flooding	Environment	Dept of Environmental Protection	Erosion & Sedimentation Control, Natural Resources Protection Act, Shoreland Zoning & Stormwater Program	Pre-disaster
Flooding	Structures/Roads	Maine Emergency Management Agency	Dam Safety Law (37-B, Chapter 24)	Pre-disaster
Flooding	Evacuations & Mass Care	American Red Cross	Disaster Shelter Management Program	Post-disaster
Wildfires	Timberland	Maine Forest Service	Forest Protection Division	Post-disaster
Wildfires	Timberland	Maine Forest Service	Forest Health and Monitoring	Pre-disaster
Wildfires	Residential Structures	Maine Forest Service	Cooperator Assistance Program Federal Excess Property Program Volunteer Fire Assistance Program	Post-disaster
Blight & Infestation	Crops	Agricultural, Natural, and Rural Resources Office	Pesticide Control Program	Pre-disaster
Blight & Infestation	Crops	Agriculture, Food and Rural Resources	Authority to quarantine plant pests Enforcement of Permit Regulations	Post-disaster
Blight & Infestation	Environment	Bureau of Geology and Natural Areas	Invasive Species Awareness and Prevention Plan	Pre-disaster
Blight & Infestation	Environment	Dept of Environmental Protection	Spread of Invasive Aquatic Plants Grants Watershed Protection Grants	Pre-disaster
Blight & Infestation	Environment	Inland Fisheries & Wildlife	Invasive Aquatic Plant Prevention Program	Pre-disaster
Blight & Infestation	Environment	Dept of Marine Resources	Public Health Program	Pre-disaster
All-Hazards	All Types	Maine Emergency Management Agency	Emergency Mgmt Performance Grants Pre-Disaster Mitigation Grants Public Education & Information	Pre-disaster
All-Hazards	All types	Maine Emergency Management Agency	Hazard Mitigation Program Grants	Post-disaster
All-Hazards	Life & Safety	Emergency Services Comm Bureau	Enhanced 911	Post-disaster
All-Hazards	Public Property	Bureau of General Services	Inventories all State Owned Property Maintains construction plans and costs	Post-disaster
All-Hazards	Public Property	Bureau of General Services	Insurance on State Owned Property	Post-disaster

It was decided by the State Hazard Mitigation Planning Team to review the state and local natural disaster hazard mitigation capabilities, and then evaluate the list of State and Federal funding sources before developing detailed State Mitigation Goals. As such, the sections in this plan for Goals and Funding Sources have been placed after the capability assessments.

In general terms, the goals of the State Hazard Mitigation Plan are to motivate and assist state, county and local government elected and appointed officials, and public and private agencies to mitigate against the effects of natural hazards.

As observed in the previous table, there are a number of fairly effective mitigation programs in place to deal with the impacts of Flooding, Wildland Fires and Blight & Infestation. More can be done in these areas, however, there has been a concerted effort in the past to deal with these hazard events. Conversely, there is little mitigation effort in terms of dealing with the impacts of Severe Winter Storms, Severe Summer Storms, Hurricanes, Drought and Earthquakes. These are most dealt with a few All-Hazard mitigation programs and efforts.

Through the development of the State Hazard Mitigation Plan, the State of Maine seeks to review and assess the State's financial, legal and programmatic ability to initiate and complete the mitigation efforts which will reduce the impacts of its identified natural disaster hazard events. This assessment of state capabilities is defined by the natural disaster hazard events that have the greatest impact on the State of Maine.

FLOODING

In Maine, the greatest amount of damage from flooding events occurs to the roadway system, both State and municipal roads. This is followed in severity and probability with damage to homes and businesses located along the shores of rivers, lakes and the coastal waters. Currently, there are four major State programs that work to mitigate the effects of flooding.

The Maine Department of Transportation (MDOT) is responsible for the repair, maintenance and upgrade work to state-owned highways. When funds are available, the DOT upgrades and/or elevates road surfaces to reduce the possibility of flood damage to roads. The DOT also maintains the Maine Local Roads Center which provides technical assistance to municipalities for completing the same actions. Unfortunately, many times there is not sufficient funding, both at the State and municipal level, to complete all the road work that is necessary.

The second state program is the State Planning Office's Floodplain Management Program, which provides technical assistance and model floodplain ordinances to municipalities, oversees the state portion of the National Flood Insurance Program (NFIP). The effort to enact floodplain ordinances in every Maine community has had the greatest effect of loss reduction on real property in the State. However, the requirement for every municipality to have a floodplain ordinance is not mandatory and 10% of the communities in Maine have not enacted these local regulations.

The third state program is the planning and hazard mitigation grant programs managed by the Maine Emergency Management Agency (MEMA). MEMA is responsible for the maintenance of the State Emergency Operations Plan (EOP) and State Hazard Mitigation Plan (HMP) which better prepares state agencies to prepare and respond to natural disaster hazard events. MEMA also manages the state portion of FEMA's Hazard Mitigation Grant Program and the Pre-Disaster Mitigation Program. However, due to insufficient agency staffing, more technical assistance is needed by the county and municipal governments in order for these local officials to have a better awareness and understanding of hazard mitigation policies, plans and programs.

The last set of state programs that effectively deals with flooding are the Department of Environmental Protection's (DEP) Stormwater Management, Shoreland Zoning and Dam Licensing statutes, regulations and programs. These programs and regulations deal with the man-made causes of stormwater capability reduction and waterbody retention. The Stormwater Management and Shoreland Zoning laws are fairly effective, however, also due to a lack of enforcement staffing, they are not as effective as they should be.

WINTER STORMS

The second greatest amount of damage caused by a natural disaster hazard event is severe winter storms. Winter storm damages typically involve downed overhead utility lines, flooding from ice jams and melt off, and debris in the roads. (Since flooding has been covered in the preceding section, it will not be reviewed in this section). Currently, there is one major State program that works to mitigate the effects of severe winter storms.

The MDOT is responsible for snow and debris removal on all state highway roads. MDOT garages are well placed around the state to complete this task in a timely manner. MDOT also provides technical assistance to municipalities for the road debris clearance with the Maine Local Roads Center. At times, the MDOT will even assist with the actual debris clearance on select local roads. However, in many cases, a really bad winter storm can overwhelm the financial and equipment capabilities of many municipalities.

HURRICANES

Historically, hurricanes in Maine have always been a Level 1, and excluding the flooding, have not caused significant destruction. However, the damaging effects of hurricane storm surge and flooding have caused major damage in Maine in the past. As such, state programs that work to mitigate the effects of flooding have already been described in a preceding section. There are no mitigation programs in the State of Maine dedicated solely to lessening the impacts of hurricanes. Unfortunately, in many instances, the storm surge inundation flood areas are much greater than the 100 year FIRM flood areas and it is these areas that are not regulated by the current state and local floodplain management programs in Maine.

WILDFIRE

Although Wildfires normally do not cause a great deal of destruction in Maine, they have a terrible potential, as evidenced in the forest fires of 1947. Forest fires could cause a huge loss of residential structures in the state due to the very high percentage of Maine homes located in the wildland-urban interface and the general lack of pre-disaster mitigation efforts. Land use planning and regulation and building codes in Maine do not deal at all with the wildland-urban interface issues. Mitigation efforts in the state are limited to the Maine Forest Service which perform forest health and monitoring, oversees forest firefighting efforts, and provides financial and equipment grants to local fire departments.

BLIGHT & INFESTATION

Blight and infestation are present in the State of Maine in many areas and there are several state agencies and programs that are working to mitigate the losses from these sources. The Department of Agriculture, Food and Natural Resources manages pesticide programs to reduce the loss to agricultural products. The Bureau of Geology and Natural Areas, Department of Environmental Protection, Department of Inland Fisheries and Wildlife, and the Department of Marine Resources are all working to prevent the spread of invasive species. Although there is a great deal of interest in this hazard, the efforts are spread across many state agencies and coordination of these agencies' efforts is an ongoing issue.

SEVERE SUMMER STORMS

The types of severe summer storms in Maine include thunderstorms and tornadoes. Tornadoes are rare and due to the low population density have not been a major concern. Thunderstorms have caused damages to structures, mostly from overturned trees. Lightning has caused injuries and deaths, mostly from individuals being struck. There are no mitigation programs in the State of Maine dedicated solely to lessening the impacts of severe summer storm, excluding that of all-hazards emergency management planning and emergency response agencies.

DROUGHT

Maine is not a “dry” state in terms of climate, however there have been periodic periods of Drought conditions. The impacts of Maine droughts are higher instances of dry water wells, poor performance of annual agricultural products, and greater opportunities for forest fires. There are no mitigation programs in the State of Maine dedicated solely to lessening the impacts of Drought.

EARTHQUAKE

Although Maine experiences earthquakes on a regular basis, the chances of occurrence for an earthquake that could cause major damages is very remote. The estimated return time for a magnitude 6.0 earthquake in Maine is 363 years. There are no mitigation programs in the State of Maine dedicated solely to lessening the impacts of earthquakes, excluding that of all-hazards emergency management planning and emergency response agencies.

SUMMARY

Because the State of Maine has a small population (2003 estimate of 1,305,728), it does not have significant state, county and local government staffs or budgets dedicated to hazard mitigation. There are only three state officials in the State Floodplain Management Program to oversee Maine’s most significant natural disaster hazard. There are no state grants for local floodplain projects. There are only three state personnel working in the Local Roads Center, providing technical assistance to communities. There are no state personnel who deal with hurricane, earthquake, drought or severe summer storm mitigation. There are multiple agencies that deal with blight and infestation mitigation, however, they are scattered and many times are part-time positions. There does appear to be sufficient staffing for the annual spread of wildfires, however, there is a severe shortage of trained and equipped state and local manpower for a wildfire disaster of the 1947 magnitude. Many of these existing programs are already funded in part by Federal sources.

Of significant importance to furthering hazard mitigation, the Governor and Legislature signed two bills into law in the spring of 2004. The first law establishes a single, statewide model building code for all cities and towns which presently have no adopted code. The other law tasks the State Planning Office with providing model downtown rehabilitation code assistance to Maine’s 494 cities and towns. Both of these laws represent a significant opportunity for Maine to address, in a coordinated fashion, six out of the eight major hazard risks to the state: flooding, winter storms, hurricanes, summer storms, wildfires and earthquakes. Maine has worked for 20 years to reach the point of having model codes for new construction and rehabilitation. Successfully designing these model codes and administering training and technical assistance for their adoption and administration will be the next challenge for Maine in implementing this important hazard mitigation tool.

**Maine Hazard Mitigation Strategy
State Mitigation Capability Assessment Matrix**

State Department, Agency, Authority, Board, Commission, Division	Mitigation-related Programs, Plans, Policies, Regulations, Funding or Practices	Effect on Loss Reduction (X) State Mitigation Initiatives			General Description of Effect on Mitigation Initiatives
		Provides Funding	Supports Implementation	Conflicts with	
American Red Cross Disaster Services	- Disaster Shelter Management Program		X		Maintains statewide database of 535 disaster relief shelters. Provides for safety and pre-event identification of mass care facilities including feeding, family and volunteer reception centers.
Administrative and Financial Services Bureau of General Services Risk Management Division	- Insurance on State Owned Property		X		Provides insurance advice to the state government and administers all state insurance and self-funded plans and programs. Helps to reduce the cost of loss to state owned property.
Administrative and Financial Services Bureau of General Services Professional Services Div.	- Inventories all State Owned Property - Maintains construction plans and costs		X		Provides technical and fiscal oversight/approval to construction and repair of buildings and public works. Ensures that State Facilities are built to code.
Administrative and Financial Services Chief Information Officer	- Sets standards for the use of information technology in State government		X		Guides the use of information technology, such as the State Internet system. Support mitigation efforts through better distribution of information.
Agriculture, Food and Rural Resources Animal Health & Industry Div	- Enforcement of Permit Regulations - Prompt diagnosis of disease - Surveillance testing programs - Accreditation of Veterinarians		X		Controls animal disease through regulation, education and enforcement. Reduces the impact and severity of animal-borne diseases.
Agriculture, Food and Rural Resources Plant Industry Division	- Authority to quarantine plant pests. - Enforcement of Permit Regulations		X		Controls plant disease through regulation, education and enforcement. Reduces the impact and severity of plant infestations.
Agriculture, Food and Rural Resources Agricultural, Natural, and Rural Resources Office	- Pesticide Control Program - Animal Welfare Program - Integrated Pest Management		X		Oversees the use of pesticides and the health and safety of agricultural animals in the prevention of blight, infestation and disease.
Conservation Bureau of Geology and Natural Areas	- Inventories, maps, assess, and interprets Maine's geology. - Invasive Species Awareness and Prevention Plan		X		Through the study of Maine's geology, the program determines Maine's likelihood of damaging earthquakes. Identifies, reviews and strategies ways to reduce impact of Invasive Species.

State Department, Agency, Authority, Board, Commission, Division	Mitigation-related Programs, Plans, Policies, Regulations, Funding or Practices	Effect on Loss Reduction (X) State Mitigation Initiatives			General Description of Effect on Mitigation Initiatives
		Provides Funding	Supports Implementation	Conflicts with	
Conservation Land Use Regulation Commission	- Serves as the planning and zoning authority for unorganized areas of State, encompassing 10.4 million acres.		X		By regulating development in the unorganized areas, the program ensures that development is not accomplished in hazard areas.
Conservation Maine Forest Service	- Forest Protection Division		X		Oversees the pre-suppression, suppression and investigation of Maine forest fires. Provides trained and equipped Forest Rangers.
Conservation Maine Forest Service	- Forest Health and Monitoring		X		Pest management and damage prevention for Maine's forest resources.
Conservation Maine Forest Service	- Cooperator Assistance Program - Federal Excess Property Program - Volunteer Fire Assistance Program	X	X		Provides grant funds, training and equipment to communities for forest fire protection suppression.
Defense, Veterans and Emergency Management Maine Emergency Management Agency	- Dam Safety Law (37-B, Chapter 24) - State Emergency Operations Center - Emergency Management Education - Disaster Preparedness Information		X		Coordinates the protection of Maine citizens from All-Hazards emergencies; coordinating disaster mitigation, preparedness, response and recovery actions; and assisting county and local governments in protecting life and property.
Defense, Veterans and Emergency Management Maine Emergency Management Agency	- Emergency Management Performance Grants	X			Oversees and manages the Federal funding of the Emergency Management program in Maine. Provides personnel for planning and mitigation efforts at the State and County level.
Defense, Veterans and Emergency Management Maine Emergency Management Agency	- Hazard Mitigation Grant Program - Pre-Disaster Mitigation Grants	X			Oversees and manages the Federal funding of Hazard Mitigation Local and State Plans and for local mitigation programs and construction projects.
Defense, Veterans and Emergency Management Maine National Guard	- Disaster Recovery manpower pool		X		Provides a quick manpower and equipment resource for the Governor to reduce the severity and duration of disaster effects.
Economic & Community Development Department Office of Community Development	- Economic Development Infrastructure Grant Program - Public Facilities Grant Program	X			Includes public projects for flood and drainage improvements and for the construction of fire stations, homeless shelters, piers and dams. Projects must meet flood protection standards.
Economic & Community Development Department Maine Office of Tourism	- Maine Tourism Program			X	Helps to increase the special needs population of people unfamiliar with Maine's hazards and who are in a transient mode.

State Department, Agency, Authority, Board, Commission, Division	Mitigation-related Programs, Plans, Policies, Regulations, Funding or Practices	Effect on Loss Reduction (X) State Mitigation Initiatives			General Description of Effect on Mitigation Initiatives
		Provides Funding	Supports Implementation	Conflicts with	
Environmental Protection State Statutes	- Erosion & Sedimentation Control - Hydropower & Dams - Natural Resources Protection Act - Shoreland Zoning - Stormwater Program		X		Enforces standards on damages from Erosion. Licensing of hydropower projects for flood control. Regulates development in wetland areas. Regulates development in the shoreland zone. Regulates development that effects stormwater.
Environmental Protection Dept of Water Quality	- Prevent Spread of Invasive Aquatic Plants Grant. - Watershed Protection Grants	X			Provides education, inspection and hand removal grants for preventing aquatic plant infestations. Provides education grants to local schools for educating students about watershed protection.
Inland Fisheries & Wildlife Resource Management	- Invasive Aquatic Plant Prevention Program		X		Provides an education, permit and enforcement program to reduce the introduction of invasive aquatic plant infestation into Maine waters.
Marine Resources Bureau of Resource Management	- Public Health Program		X		Identifies pollution sources that may be corrected in order to increase the amount of shellfish producing areas open to harvesting. Biotxin sampling is conducted to monitor the occurrence of PSP or "red tide" and close shellfish harvest areas as necessary to protect public health.
Public Safety Emergency Services Communication Bureau	- Enhanced 911		X		Saves lives by giving the public the ability to dial for immediate help for all emergencies. Provides for automatic caller location information, critical to speeding up the dispatch of emergency services.
Public Safety Fire Marshal's Office	- Licensing and Inspections Program		X		Enforces fire safety- related building codes to reduce loss of life due to fires.

State Department, Agency, Authority, Board, Commission, Division	Mitigation-related Programs, Plans, Policies, Regulations, Funding or Practices	Effect on Loss Reduction (X) State Mitigation Initiatives			General Description of Effect on Mitigation Initiatives
		Provides Funding	Supports Implementation	Conflicts with	
State Planning Office Floodplain Management Office	- Maine Floodplain Management Program		X		Provides technical information, FIRM maps and model ordinances to Maine communities. Provides information about flooding and the NFIP. Provides training on reading and using flood maps, ordinance interpretation, and floodplain management. Reviews local ordinances for compliance with the NFIP standards.
State Planning Office Land Use Office	- Land Use Planning - Community Planning & Investment Program (CPIP)	X	X		Provides technical and financial assistance to municipalities, advises the legislature, coordinates with other state agencies, and advocates for sound land use planning. Administers the CPIP, covering the topic areas of community planning, growth management and smart growth.
State Planning Office Code Enforcement Training and Certification Office	- Municipal Code Enforcement Training Program	X	X		Trained, testing and certifying in all land use codes, including building, shoreland zoning, and floodplain management.
State Planning Office Maine Coastal Office	- Maine Coastal Program		X		Provides technical assistance to municipalities, advises the legislature, coordinates with other state agencies, and advocates for sound land use planning in Maine coastal areas.
Transportation Bureau of Planning Community Services Division	- Maine Local Roads Center		X		Provides training, technical assistance, and information to municipalities for constructing, maintaining, and managing local roads & bridges.
Transportation Environmental Office	- Natural Resources Mitigation Program		X		Directs and coordinates compensatory mitigation for impacts to wetland resources caused by State transportation projects.

LOCAL CAPABILITY ASSESSMENT

Requirement §201.4(c)(3)(ii)	<i>[The State mitigation strategy shall include a] general description and analysis of the effectiveness of local mitigation policies, programs, and capabilities.</i>
---------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

The Maine Emergency Management Agency has been actively working with the county emergency management agencies on the development of their local Hazard Mitigation Plans. Many of these local plans are just now being submitted to FEMA for review and approval. As such, the State Mitigation Plan, which is being written concurrently with the local plans, does not evaluate the mitigation measure projects of the local plans. However, this section will discuss and illustrate the effectiveness of existing local mitigation capabilities and will discuss the expected effectiveness of the general trend of future local mitigation activities.

FLOODING

Some Maine communities have taken advantage of the Maine Department of Transportation's (MDOT) Maine Local Roads Center and have acquired technical assistance and training on maintenance and upgrades to local roads, especially in terms of stormwater management. Unfortunately, many have not sought this assistance. After Education, road maintenance and upgrades are usually the second largest municipal budget item.

Most Maine communities (90%) have received technical assistance and guidance from the State Planning Office's Floodplain Management Program, have floodplain ordinances and are members of the National Flood Insurance Program (NFIP). This program has probably had the greatest effect of loss reduction on real property in the State. However, the requirement for every municipality to have a floodplain ordinance is not mandatory and not all communities have become NFIP members.

Some municipalities have received hazard mitigation grant programs in order to complete structural mitigation projects, usually road upgrades. Over time, those communities that have participated have eliminated their road washout problems. One such community is the town of Searsmont, which has received several mitigation grants and has effectively protected all of their local roads from flooding damage. Unfortunately, the need for these grants outweighs the supply.

Every municipality in the State of Maine is required to have a Code Enforcement Officer (CEO). Most municipalities also have a local comprehensive plan and a set of land use ordinances. The CEO enforces not only the local ordinances but provides advice and a second set of eyes for state environmental permit programs in stormwater management and shoreland zoning. However, state statute does not make local comprehensive plans and ordinances mandatory and many smaller towns do not have these mitigation programs.

WINTER STORMS

The biggest impact to the municipal budget from winter storms is to the Winter Road Maintenance budget, in the form of unplanned debris removal and extra snow and ice removal costs. In many cases, a really bad winter storm can overwhelm the financial and equipment capabilities of many smaller municipalities. Many communities will spread calcium chloride on roads prior to a storm to help reduce the amount of icing and some communities will cut back trees within the municipal road easement. However, a majority of communities do not have the resources to accomplish these pre-disaster mitigation activities.

HURRICANES

Coastal Maine communities are typically the only ones to experience most hurricane damages and much of this is from storm surge flooding. Although, the flooding hazard mitigation was discussed above, one problem that remains is the recent discovery through storm surge inundation maps that larger areas may become flooded than what is shown on the FIRM maps. Unfortunately, Maine communities use the FIRM maps for their floodplain ordinances and not inundation maps. Major structures have been built on the coast recently that were outside the FIRM Special Flood Hazard Areas, but have been shown to be possibly endangered by the storm surge flooding from even a category level 1 Hurricane.

WILDFIRE

Forest fires have the potential for causing a huge loss of residential structures in Maine communities, due to the very high percentage of Maine homes located in the wildland-urban interface and the general lack of pre-disaster mitigation efforts. Land use planning and regulation and building codes in Maine do not deal at all with the wildland-urban interface issues. Mitigation efforts at the local level are limited to the forest firefighting efforts of the local volunteer or municipal fire department. Unfortunately, building codes are very unpopular in this “Home Rule” state and are not likely to be enacted in any Maine communities.

BLIGHT & INFESTATION

Blight and infestation are present in the State of Maine in the coastal and inland waters, the Maine forests and on the many local farms. Since the coastal and inland waters are either owned or managed by the State government, the municipal governments are typically not involved. Maine forests may encompass many communities and unorganized townships and also are typically managed by the State. Because crop damages from blight could also be a widespread hazard, it is typically State and Federal agencies that are involved in the pre- and post-disaster mitigation activities.

SEVERE SUMMER STORMS

There are no mitigation programs at the local level in Maine dedicated solely to lessening the impacts of severe summer storm, excluding that of all-hazards emergency management planning and emergency response agencies. Tornadoes are too rare and lightning effects too few people (an occasional home fire somewhere in the State). Thunderstorms can cause localized power outages and storm debris in the roads, but these will only take a few hours to repair and cleanup.

DROUGHT

Maine communities are impacted by drought by the increase in possibility of forest fires, dry wells and poor crops. Forest fires and poor crops were discussed in other paragraphs of this section. Individuals and public water suppliers typically deal with dry wells through their own investment in new wells. There are no mitigation programs at the local level in Maine dedicated solely to lessening the impacts of Drought.

EARTHQUAKE

Although Maine experiences earthquakes on a regular basis, the chances of occurrence for an earthquake that could cause major damages is very remote. The estimated return time for a magnitude 6.0 earthquake in Maine is 363 years. There are no mitigation programs at the local level in Maine dedicated solely to lessening the impacts of earthquakes, excluding that of all-hazards emergency management planning and emergency response agencies.

GENERAL SUMMARY

Local Mitigation Capabilities by Hazard Matrix

HAZARD	TYPICAL DAMAGES or LOSSES	ACTIVITY TASKED	PROGRAMS	PRE- OR POST-DISASTER
Flooding	All Structures	Code Enforcement Officer or Municipal Planning Board	Floodplain Ordinance	Pre-disaster
Flooding	Local Roads	Road Commissioner or Public Works Director	Using Maine Local Roads Center Municipal Capitol Improvement Projects	Pre-disaster Pre-disaster
Flooding	Environment	Code Enforcement Officer	Municipal Land Use Ordinances Erosion & Sedimentation Control, Natural Resources Protection Act, Shoreland Zoning & Stormwater Program Wildland Firefighting Program	Pre-disaster
Winter Storms	Roads	Road Commissioner or Public Works Director	Winter Road Maintenance program.	Post-disaster
Hurricanes	Environment	Code Enforcement Officer	Shoreland Zoning & Stormwater Program	Pre-disaster
Wildfires	Residential Structures	Municipal/Volunteer Fire Department	Wildland Firefighting program	Post-disaster
All-Hazards	All Types	Municipal Emergency Management Director	Public Education & Information	Pre-disaster
All-Hazards	All types	Municipal Elected Officials	Hazard Mitigation Program Grants	Post-disaster

There are two major problems that currently exist in the State of Maine that conflict with good sound hazard mitigation practices. Although these two trends are not specifically created by public investment, they are very popular residential developments and State and local governments do little to restrict or regulate these development activities located in hazard prone areas.

People love to build very nice, expensive homes on the Maine Coast. In recent years, there has been an explosion of housing development on the Maine Coast. There are a few building restrictions provided by the NFIP and municipal floodplain ordinances and some coastal communities have enacted national building codes. However, there have been no planning, regulation or other program requirements based on hurricane storm surge inundation flooding. Much of this residential development has taken place since the last major hurricane in 1985.

Another favorite residential development scheme is building your home in the great Maine Woods. Maine is a state that is nearly the same geographic size as New Hampshire, Vermont, Massachusetts, Connecticut and Rhode Island combined and is covered by 90% forestland. Much of the forestland is relatively cheap to purchase and there is plenty of room to build your new home. In 1947, when Maine last had a big forest fire disaster, most homes were farmhouses surrounded by fields. Unfortunately, today the large majority of residential lots are carved into woodlots with trees hanging over the homes to provide shade. There are

no building codes that restrict residential building materials and no requirements to keep clear zone buffers around homes.

The State of Maine has 492 municipalities and is a “Home Rule” state. County government is very weak and has no control over the municipalities regarding land use, building codes, or development. The largest community in Maine is the City of Portland, which only has 65,000 residents. Many Maine towns range from a few hundred residents to a few thousand. There is no interest in most communities to enact strict building codes, especially for residential development in coastal or woodland areas. The County government has no authority to do so. Any future statutory or regulatory requirements to restrict residential development in the hazard-prone areas of coastal storm surge inundation flood areas or in the urban-wildland interface will most likely come from the State government.

FUNDING SOURCES

<i>Requirement §201.4(c)(3)(iv)</i>	<i>[The State mitigation strategy shall include] identification of current and potential sources of Federal, State, local, or private funding to implement mitigation activities.</i>
-------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

The State of Maine and local jurisdictions use several funding sources to implement hazard mitigation activities. The majority of the funding comes from Federal and Municipal programs. Federal funds are typically managed by the State.

The State is interested in pursuing other sources of funds and to encourage municipalities, Maine residents and local businesses to invest in hazard mitigation measures. Some existing and potential funding sources are included in the table below.

Funding Source	Purpose	Hazard	Pre- or Post- Disaster	Estimated Amount (Annual)
FEDERAL				
Hazard Mitigation Grant Program	To implement long-term mitigation strategies	All-Hazards	Post	7.5% of Disaster
Pre Disaster Mitigation Grant	To provide planning and projects to lessen impacts of disasters	All-Hazards	Pre	\$0-3 million
Flood Mitigation Assistance Program	Planning, Project & Technical Assistance Grants	Flooding	Pre	\$160,000
Community Development Block Grant	To improve community services and facilities	Flooding	Pre	\$3,000,000
FEMA FIRE Grants	To upgrade community emergency services	All-Hazards	Post	\$10,000,000
Homeland Security Grants	To upgrade community emergency response and homeland security capabilities	All-Hazards	Post	\$11,000,000
US DOA National Conservation Resources Service	Provides funds to farmers to incorporate erosion control and stormwater management into their farming practices	Flooding	Pre	Varies
Emergency Management Performance Grants	Funds to help educate the public on natural and technological hazards	All-Hazards	Pre	\$1,700,000
Disaster Housing Program	Provides small grants to incorporate hazard mitigation into home repairs	All-Hazards	Pre	% of disaster
STATE				
Maine Highway Fund	To provide funding for highway road maintenance and capitol improvements	Winter Storm	Post	Varies
Environmental Protection Permits	To enforce compliance with stormwater management and erosion control	Flooding	Pre	Varies
MUNICIPAL				
Municipal Capitol Improvement Projects	To construct long-term upgrades to local roads and bridges	Flooding	Pre	Varies by community
Land Use Impact Fees	To fund activities that will deal with land use development impacts	All-Hazards	Pre- or Post	Need to be created

NOTE: The majority of these funding sources are highly competitive and the amounts can differ greatly.

HAZARD MITIGATION GOALS

Requirement §201.4(c)(3)(i)	<i>[The mitigation strategy shall include] a description of State goals to guide the selection of activities to mitigate and reduce potential losses.</i>
---------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------

Based on the information gathered from the 35 meetings described in Section 2, Risk Assessments, MEMA drafted and the Maine Hazard Mitigation Planning Team reviewed and approved the following goals, objectives and actions. Additionally, the bulleted items below capture overarching issues that further influenced the decision making process:

- Many county and municipal officials were not familiar with the mitigation planning process or the need for mitigation actions, prior to the 2003-2004 HMP efforts.
- Little public education and information programs concerning mitigation activities, due to this state being a “Home Rule” state.
- Few statutory requirements for mitigation- oriented land and building uses.
- A lack of funding and staffing at the State, county and municipal levels of government hinders the completion of mitigation planning, grant writing and project completion.
- Insufficient funding for mitigation-oriented capitol improvements & equipment projects.
- A lack of program coordination between State agencies on mitigation issues.
- Little review and evaluation of projects at State, county and municipal levels of government in Maine for compliance with good mitigation management practices.
- Municipal, county and State lack sufficient GIS resources for their hazard mitigation planning process.

After lengthy discussion, the Maine Hazard Mitigation Planning Team agreed on the following Hazard Mitigation Goals:

No.	Goal Description
1	Build county and municipal officials and residents’ awareness of mitigation and proven, cost-effective mitigation measures and the need for mitigation.
2	Enact legislation to improve land use statutes to include land use and building codes for coastal storm surge flooding, erosion and the wildland-urban interface.
3	Increase technical assistance to and coordination with local jurisdictions for state, county and municipal-level mitigation efforts.
4	Budget and allocate state funding for hazard mitigation capitol improvement and maintenance projects for roadways and backup power for public facilities.
5	Better coordinate the mitigation and data collection efforts of State Agencies.
6	Develop a process for better review and evaluation of State-funded or managed projects for compliance with good mitigation practices and standards.
7	Provide dedicated GIS staffing for Hazard Mitigation Planning.
8	Develop an Enhanced State Hazard Mitigation Plan.

After reviewing the Goals, the Maine Hazard Mitigation Planning Team agreed on the following Hazard Mitigation Objectives:

OBJ	DESCRIPTION
1	The Maine Emergency Management Agency will develop outreach programs to increase awareness and knowledge of hazard mitigation principles and practices among county and municipal officials, businesses, non-profit organizations and state residents.
2A	Develop strong incentives and effective assistance for municipalities to update land use and building regulations to include requirements for coastal storm surge flooding and the wildland-urban interface.
2B	Enact legislation to give the State Planning Office the authority to require that every municipality with a Special Flood Hazard Area have a Floodplain ordinance and be a member of the National Flood Insurance Program.
3A	Establish and staff a Hazard Mitigation Technical Assistance program (similar to the Maine Local Roads Center) that can assist State, County, Municipal governments and non-profit organizations on implementing mitigation measures. Staff expertise should include training and experience in building codes, emergency planning, engineering, environmental sciences, GIS technology and land use planning.
3B	Increase Stormwater and Shoreland Zoning Enforcement Staffing.
3C	Review the remaining county hazard mitigation plans to determine those communities that are the most vulnerable to damage losses associated with hazard events.
4A	Budget and allocate state funding for roadway capital improvement and maintenance projects for upgrading and/or elevating roadways in flood areas and stormwater management systems.
4B	Budget and set up a "Winter Day" (as opposed to "Rainy Day") state fund to be used to assist municipalities with winter storm related roadway damages and costs. Provide low-cost loans to communities to upgrade snow removal equipment.
4C	Budget and allocate state funding for electrical power generator grants for critical public facilities.
5A	Develop an Mitigation Review Committee consisting of key State agency leaders to review state programs for opportunities to combine capabilities and resources on mitigation strategies.
5B	Establish a process for collecting and managing hazard mitigation information and data in order to improve the mitigation strategies of state and local mitigation planning.
5C	Collect vulnerability and potential loss data for State buildings and infrastructure associated with the most likely hazards events.
6A	Develop a Best Management Practices (BMP) Manual (similar to DEP's Erosion Control BMP Manual) for the review and evaluation of State-funded or managed projects for compliance with good mitigation practices and standards.
6B	Revise Hazard Mitigation prioritization criteria
7A	Budget, allocate funding and authorize GIS technician staff for Hazard Mitigation Planning at State Agencies, such as the Maine Emergency Management Agency, State Planning Office and the Department of Conservation.
7B	Convert MGS dune maps to a GIS coverage so the spatial extent in each municipality or county could be known and integrated.
7C	Determine dune cross-section areas for 100 year storms.
7D	Complete mapping of bluff and landslide hazards along the remainder of the Maine coast for a uniform and state-wide GIS coverage.
7E	Provide Hurricane Storm Surge Inundation maps to every community participating in the NFIP and encourage inclusion in their floodplain ordinances.
7F	Complete Q3 Flood Maps for those counties which do not have Q3 data.
7G	Refine GIS mapping of all dam locations.
8	Develop a FEMA-approved State Enhanced Hazard Mitigation Plan.

NOTE: Goal and Objective numbers match. Multiple objectives under a single goal are designated alphabetically. Example: Goal 7 (Provide dedicated GIS staffing for hazard mitigation planning) is broken out to Objectives 7A-7G. Action numbers will often not match due to prioritization.

MITIGATION MEASURES (ACTIONS)

Requirement §201.4(c)(3)(iii)	<i>[State plans shall include] an identification, evaluation, and prioritization of cost-effective, environmentally sound, and technically feasible mitigation actions and activities the State is considering and an explanation of how each activity contributes to the overall mitigation strategy. This section should be linked to local plans, where specific local actions and projects are identified.</i>
----------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

The Maine Hazard Mitigation Planning Team, consisting of representatives from the state agencies that will be responsible for implementing the Mitigation Goals and Objectives in this plan, met to review the Goals and Objectives and to identify, evaluate and prioritize mitigation actions for the State to complete.

The mitigation actions were analyzed, evaluated and prioritized using the following criteria:

- Population Benefited
- Environmental Soundness
- Probability of Funding
- Technical Feasibility for Implementation
- Benefit to Coast Ratio (Cost Impact/Implementation Cost)

This section will present the criteria table that was used to evaluate and prioritize the projects, will list the Mitigation Action Projects by Objectives, will show a table of assigned values using the Criteria Table, and will then list the projects in priority order by the Lead Agency responsible for the completion of the projects.

MITIGATION ACTION PROJECT CRITERIA TABLE

Criteria Category	4 Points	3 Points	2 Points	1 Point	0 Points
Population Benefited	Over 1 Million	500,000 to 999,999	100,000 to 499,999	10,000 to 99,999	1-9,999
Environmental Soundness	Greatly improves the environment	Small improvement to the environment	Neutral impact to the environment	Small impact to the environment	Cause harm to the environment
Probability of Funding	Funds are already available	Grants with matching funds required	Requires one year investment	Requires long term investment (Bond Issues)	No Chance of Funding
Technical Feasibility	Very Easy to Implement	With effort, can put into place in year	Requires regulatory changes only	Requires statutory changes	No chance of implementation
Benefit to Cost Ratio	More than 5	3-4	2-3	1-2	Less than One

MITIGATION ACTION PROJECTS BY OBJECTIVES

Obj. #	Action	Resource	Agency	Hazard	Long or Short Term	Results of Action
1	Create a Hazard Mitigation Awareness Outreach Program	1 Full Time Employee	MEMA	All-Hazards	Long	To provide mitigation information and understanding to local public officials and the public.
1	Use Website to advertise mitigation concepts	Webpage	MEMA	All-Hazards	Long	To provide mitigation information and understanding to local public officials and the public.
1	Advertise Hazard Mitigation concepts in media	Media	MEMA	All-Hazards	Short	To provide mitigation information and understanding to local public officials and the public.
1	Improve the State's disaster early warning capabilities, such as river gauges and NOAA alerting systems	Funds	MEMA	All-Hazards	Long	To give emergency managers more time and data for effective mitigation decision-making.
2A	Modify the Floodplain Management program to use storm surge/SLOSH maps and requirements	Maps & Model Ordinances	SPO	Coastal Flooding	Long	To better regulate development in "all" flood zones.
2A	Encourage all communities to enact a basic Urban-Wildland Interface building code	Legislation & Regulation	SPO & MFS	Wildfires	Long	To reduce the possibility of residential losses due to wildfires.
2B	Require that every municipality have a Floodplain ordinance and be a member of the NFIP	Legislation	SPO	Flooding	Long	To ensure that all residents are better protected from flooding and to have the opportunity for flood insurance.
3A	Establish & staff a Hazard Mitigation Technical Assistance Office	2 Full Time Employees	MEMA	All-Hazards	Long	To provide mitigation technical information for public officials for effective mitigation decision-making.
3A	Support farmers with Irrigation projects and technical assistance	Funding	DOA	Drought	Long	To provide mitigation technical information for farming professionals for effective mitigation decision-making.

Obj. #	Action	Resource	Agency	Hazard	Long or Short Term	Results of Action
3B	Increase DEP Land & Water Quality Stormwater and Shoreland Zoning Enforcement Staffing.	4 Full Time Employees	DEP	Floods	Long	To reduce the possibility of urban stormwater flooding
3C	Review the remaining county hazard mitigation plans to determine those communities that are the most vulnerable to damage losses associated with hazard events.	Consultant	MEMA	All-Hazards	Short	To better coordinate state and local mitigation efforts.
4A	Budget for Floodzone Roads Capital Improvements Program	Funding	MDOT	Floods	Long	To eliminate the destruction of public roadways in Maine – the #1 damage result of hazards
4B	Budget a “Winter Day” Road Assistance Program	Funding	MDOT	Winter Storms	Short	To assist Maine communities to get quickly over the economically debilitating effects of severe winter storms.
4C	Establish and fund a Public Facility Generator Grant	Funding	MEMA	Severe Storms	Long	To eliminate the effects of power outages on essential public services which are needed most during disasters
5A	Establish the Annual Mitigation Review Committee	1 Part Time Employee	MEMA	All-Hazards	Long	To ensure that the most can be done to accomplish hazard mitigation with every public dollar
5B	Establish a state hazard mitigation database that is secure web-based and tied to GIS in order to keep the state mitigation plan up to date.	1 Full Time Employee	MEMA	All-Hazards	Long	To ensure that our State Mitigation Strategy is kept up to date in order to provide effective guidance
5C	Collect vulnerability and potential loss data to estimate losses for State owned and operated buildings, infrastructure and critical facilities associated with the most likely hazards events.	Consultant	MEMA	All-Hazards	Long	To provide better data for the Hazard Mitigation assessment and decision making.
6A	Create a Hazard Mitigation Best Management Practices Manual	Consultant	MEMA	All-Hazards	Long	To provide the ideas and technical know-how to public officials and the private sector on methods to incorporate hazard mitigation into their projects

Obj. #	Action	Resource	Agency	Hazard	Long or Short Term	Results of Action
6B	Revise Hazard Mitigation Prioritization Criteria in Admin Plan to include communities at highest risk, with consideration for repetitive loss and most intense development pressures.	1 Full Time Employee	MEMA	All-Hazards	Short	To simplify the process for choosing Hazard Mitigation Projects
7A	Staff MEMA with a GIS Technician	1 Full Time Employee	MEMA	All-Hazards	Long	To provide the data collection, map development and spatial analysis that is critical for effective hazard mitigation planning and decision making.
7B	Convert MGS dune maps to a GIS coverage so the spatial extent in each municipality or county could be known and integrated.	Consultant	DOC	Flooding	Short	To provide data for land use decision-making in order to reduce potential vulnerabilities.
7C	Determine dune cross-section areas for 100 year storms.	Consultant	DOC	Flooding	Short	To provide data for land use decision-making in order to reduce potential vulnerabilities.
7D	Complete mapping of bluff and landslide hazards along the entire GIS coverage.	Consultant	DOC	Flooding	Short	To provide data for land use decision-making in order to reduce potential vulnerabilities.
7E	Provide Hurricane Storm Surge Inundation maps to every community participating in the NFIP and encourage inclusion in their floodplain ordinances.	Consultant	MEMA	Flooding & Hurricane	Short	To provide data for land use decision-making in order to reduce potential vulnerabilities.
7F	Complete Q3 Flood Maps for those counties which do not have Q3 data and estimate probability for coastal erosion.	Consultant	SPO	Flooding	Long	To provide data for land use decision-making in order to reduce potential vulnerabilities.
7G	Refine GIS mapping of all dam locations.	1 Full Time Employee	MEMA	Flooding	Short	To determine the downriver flooding vulnerabilities from dam failures for better land use and emergency planning.
8	Create and maintain a State Enhanced Hazard Mitigation Plan	1 Full Time Employee	MEMA	All-Hazards	Long	To better protect Maine residents with a truly effective State Hazard Mitigation Strategy

These measures were evaluated by the State Hazard Mitigation Planning Team and averaged. The results are shown on the "Mitigation Action Projects Criteria Points Worksheet" which follows.

MITIGATION ACTION PROJECTS CRITERIA POINTS - WORKSHEET

Action Project	Pop Ben	Env. Sound	Prob Fund	Tech Feas	B-C Ratio	Total Pts
Create Hazard Mitigation Awareness Outreach program	3.5	2	2.75	3	3	14.25
Use Website to advertise mitigation concepts	2.5	2.25	3	3.5	3	14.25
Advertise Hazard Mitigation concepts in media	3.75	2.25	2.25	3.75	3.25	15.25
Improve the State's disaster early warning capabilities, such as river gauges and NOAA alerting systems	2.5	2.75	2.25	3.25	2.75	13.5
Modify the Floodplain Management program to use storm surge/SLOSH maps and requirements	2.75	3.25	2.5	2.8	3.5	14.8
Encourage all communities to enact a basic Urban-Wildland Interface building code	3.5	3.25	2	2.5	3	14.25
Require that every municipality have a Floodplain ordinance and be a member of the NFIP	3	2.75	2.25	1.75	3.25	13
Establish & staff a Hazard Mitigation Technical Assistance Office	3.5	2.5	3.25	2.75	3	15
Support farmers with Irrigation projects and technical assistance	.75	3	2.75	3.75	2.25	12.5
Increase DEP Land & Water Quality Stormwater and Shoreland Zoning Enforcement Staffing.	3	4	1	3	1	12
Review the remaining county hazard mitigation plans to determine communities that are the most vulnerable to damage losses associated with hazard events.	3	2	4	4	2	15
Budget for Floodzone Roads Capital Improvements Program	3.25	2.75	2.25	3.25	2.75	14.25
Budget a "Winter Day" Road Assistance Program	3.75	3.25	2.25	2.75	2.5	14.5
Establish and fund a Public Facility Generator Grant	2.75	2	1.5	2.25	2.5	11
Establish the Annual Mitigation Review Committee	3.25	2	2.25	2.5	2.75	12.75
Establish a state hazard mitigation database that is secure web-based and tied to GIS in order to keep the state mitigation plan up to date.	3	2	3	3	2	13
Collect vulnerability and potential loss data for State buildings and infrastructure associated with the most likely hazards events.	1	2	3	4	2	12
Create a Hazard Mitigation Best Management Practices (BMP) Manual	3	2.5	2.75	3.25	3.25	14.75
Revise Hazard Mitigation Prioritization Criteria in Admin Plan to include communities at highest risk, with consideration for repetitive loss and most intense development pressures.	2.5	2.25	2.75	3	1	11.5
Staff MEMA with a GIS Technician	3.5	1.75	2.75	3.25	3.5	14.75
Convert MGS dune maps to a GIS coverage so the spatial extent in each municipality or county could be known and integrated.	0	4	2	3	1	10
Determine dune cross-section areas for 100 year storms.	0	4	2	3	1	10
Complete mapping of bluff and landslide hazards along the entire GIS coverage.	0	3	2	3	1	9
Provide Hurricane Storm Surge Inundation maps to every community participating in the NFIP and encourage inclusion in their floodplain ordinances.	2	3	3	3	3	14
Complete Q3 Flood Maps for those counties which do not have Q3 data and estimate probability for coastal erosion.	1	3	3	3	3	13
Complete GIS mapping of all dam locations.	1	3	3	3	3	12
Create and maintain a State Enhanced Hazard Mitigation Plan	3.5	3.25	1.75	3.25	3.5	15.25

Pri. #	Action	Cost	Funding Source	Time Frame	Agency
1A	Create and maintain a State Enhanced Hazard Mitigation Plan	\$50,000	EMPG/MEMA	Nov 07	MEMA
1B	Advertise Hazard Mitigation concepts in media	\$100,000	PDM	Jun 06	MEMA
2	Establish & staff a Hazard Mitigation Technical Assistance Office	\$100,000/yr	EMPG/MEMA	Jun 06	MEMA
3	Review the remaining county hazard mitigation plans to determine communities that are the most vulnerable to damage losses associated with hazard events.	Completed by existing staff	EMPG/MEMA	Jul 05	MEMA
4	Modify the Floodplain Management program to use storm surge/SLOSH maps and requirements	\$50,000	PDM	Jun 06	SPO
5A	Staff MEMA with a GIS Technician	\$50,000/yr	EMPG/MEMA	Jun 06	MEMA
5B	Create a Hazard Mitigation Best Management Practices (BMP) Manual	\$75,000	PDM	Dec 06	MEMA
6	Budget a "Winter Day" Road Assistance Program	\$1,000,000/yr	US & Maine Highway Funds	Jun 07	MDOT
7A	Create a Hazard Mitigation Awareness Outreach Program	\$50,000/yr	EMPG/MEMA	Jun 06	MEMA
7B	Encourage all communities to enact a basic Urban-Wildland Interface building code	\$100,000	Land Use Impact Fees	Nov 07	SPO
7C	Budget for Flood Area Road Capital Improvements Program	\$1,000,000/yr	US & Maine Highway Funds	Jun 07	MDOT
7D	Use Website to advertise mitigation concepts	\$4,000/yr	PDM	Jun 05	MEMA
8	Provide Hurricane Storm Surge Inundation maps to every community participating in the NFIP and encourage inclusion in their floodplain ordinances.	\$200,000	Land Use Impact Fees	Jun 07	SPO
9	Improve the State's disaster early warning capabilities, such as river gauges and NOAA alerting systems	\$25,000	Bonding	Jun 07	MEMA
10A	Require that every municipality have a Floodplain ordinance and be a member of the NFIP	\$5,000	SPO Budget	Jun 06	SPO
10B	Establish a state hazard mitigation database that is secure web-based and tied to GIS in order to keep the state mitigation plan up to date.	\$50,000	EMPG/MEMA	Jun 06	MEMA
10C	Complete Q3 Flood Maps for those counties which do not have Q3 data and estimate probability for coastal erosion.	\$200,000	PDM	Nov 07	SPO
11A	Establish the Annual Mitigation Review Committee	\$20,000/yr	EMPG/MEMA	Jun 06	MEMA
11B	Revise Hazard Mitigation Prioritization Criteria in Admin Plan to include communities at highest risk, with consideration for repetitive loss and most intense development pressures.	Completed by existing staff	EMPG/MEMA	Jul 06	MEMA
12	Support farmers with Irrigation projects and technical assistance	\$500,000/yr	US DOA Grants/Loans	Jun 07	DOA
13A	Increase DEP Land & Water Quality Stormwater and Shoreland Zoning Enforcement Staffing.	\$200,000/yr	DEP Permit Fees	Jun 07	DEP
13B	Collect vulnerability and potential loss data to estimate losses for State owned and operated buildings, infrastructure and critical facilities associated with the most likely hazards events.	\$50,000	PDM	Sep 07	MEMA
13C	Complete GIS mapping of all dam locations.	Completed by Item #5 GIS Tech	EMPG/MEMA	Sep 07	MEMA

Pri. #	Action	Cost	Funding Source	Time Frame	Agency
14	Establish and fund a Public Facility Generator Grant	\$50,000/yr	Maine Budget	Jun 07	MEMA
15	Convert MGS dune maps to a GIS coverage so the spatial extent in each municipality or county could be known and integrated.	\$25,000	PDM	Jun 06	DOC
15A	Determine dune cross-section areas for 100 year storms.	\$25,000	PDM	Jun 06	DOC
16B	Complete mapping of bluff and landslide hazards along the entire GIS coverage.	\$25,000	PDM	Jun 06	DOC

These Hazard Mitigation Action Projects will be a main concern for the Maine Hazard Mitigation Planning Team. Accomplishment of these projects will in accordance with the procedures identified in the "Plan Maintenance Procedures".